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15. SUBJECT TERMS Needs assessment interagency language roundtable ILR testing assessment capability mission-focused				

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Using Needs Assessment to Align Learning and Assessment with the Capability Needed to Perform a Specific Mission

SWA Consulting

Using Needs Assessment to Align Learning and Assessment with the Capability Needed to Perform a Specific Mission

Presented by:

Dr. Eric A. Surface

Research and Publications

Surface, E. A., & Harman, R. P. (in progress). Needs assessment. *Cambridge Handbook of Workplace Training and Employee Development.*

Surface, E. A. (2012). Training need assessment: aligning learning and capability with performance requirements and organizational objectives. In M. A. Wilson, W. Bennett, S. G. Gibson & G. M. Alliger (Eds.), *The handbook of work analysis: The methods, systems, applications and science of work measurement in organizations*. New York, NY: Routledge.

Harman, R. P. (2012). Context analysis. In M. A. Wilson, W. Bennett, S. G. Gibson & G. M. Alliger (Eds.), *The handbook of work analysis: The methods, systems, applications and science of work measurement in organizations*. New York, NY: Routledge.

Surface, E. A., Harman, R. P., & Federe, M. (2012, April). Aligning learning and capability with strategy: A TNA case study. In K. Kraiger (Chair)*, By land, air, and sea: Applications in training needs assessment*. Symposium presented at the 27th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.

Surface, E. A., Dierdorff, E. C., & Cahoon, M. V. (2012, April). When identifying training needs, does source matter? In E. Dierdorff (Chair)*, Eyes of the beholder? Rater effects in work analysis*. Symposium presented at the 27th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.

Dierdorff, E. C., Surface, E. A., & Donnelly, J. (2006, May). *Assessing training needs: Do raters' work experience and capability matter?* Paper presented at the 21st annual meeting of the Society for Industrial and Organizational Psychology, Dallas, TX.

USSOCOM NA Projects

- Organizational Level Needs Assessments
  - 2004 Language Needs Assessment
  - 2009 Language, Regional Expertise, and Culture Needs Assessment

- Training Needs Assessments
  - Naval Special Warfare (2010)
  - Air Force Special Operations Command (2012)
  - Special Forces (2013)
  - Marine Corps Forces Special Operations Command (2013)

Focus: Mission Requirements

Assignment

Mission Requirements

Testing

Training

Incentives

Capability

- Organizations must ensure they have capability to perform the activities and tasks that support their missions and objectives.
  - How do organizations identify and define these capability requirements?
  - How do organizations ensure they have this needed capability?
  - How do organizations identify and closer their capability gaps?

- Work analysis techniques, such as training needs assessment, help to align organizational processes and capability with organizational objectives. The more alignment between learning, testing, policy, capability, and performance created throughout the system, the more likely individual, team, and organizational outcomes will be achieved (Surface, 2012).
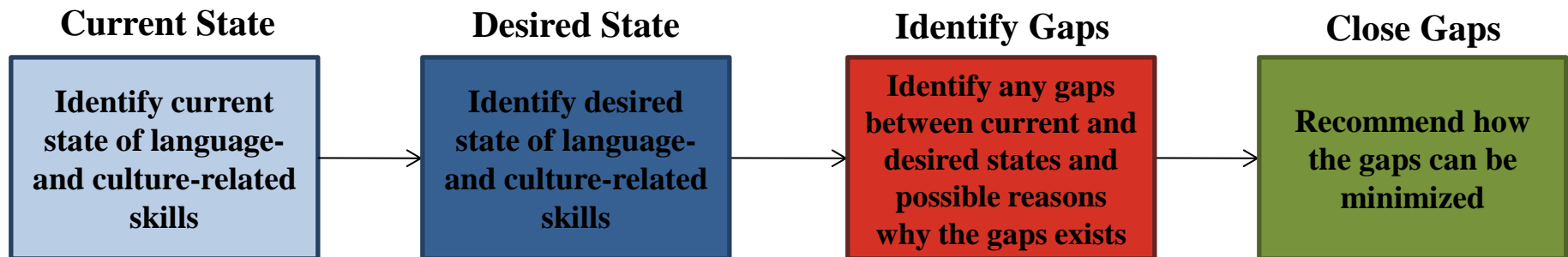
Organizational Needs Assessment

- A process which identifies gaps between current and desired states and makes recommendations about how these gaps can be closed in order to align organizational capabilities with mission and organizational requirements (Surface, 2012)

Current State	Desired State	Identify Gaps	Close Gaps
Identify current state of language- and culture-related skills	Identify desired state of language- and culture-related skills	Identify any gaps between current and desired states and possible reasons why the gaps exists	Recommend how the gaps can be minimized

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There is a GAP

Current State ← **GAP** → **Desired State**

Closing the Gap

Rely on Non-Organic Capability:
Outsource

Develop Organic Capability:
Select for Needed Capability
Train Existing Personnel

Job aids/technology
Change job or mission
Combination Approach

Closing the GAP

```
┌─────────────────────┐        ┌──────────┐        ┌─────────────────────┐
│                     │  ◄─────│   GAP    │─────►   │                     │
│   Current State     │        └──────────┘        │   Desired State     │
│                     │             ▲               │                     │
└─────────────────────┘             │               └─────────────────────┘
                          ┌─────────┴──────────┐
                          │   Closing the Gap  │
                          │                    │
                          │  Develop Organic   │
                          │    Capability:     │
                          │ Train Existing     │
                          │ Personnel and      │
                          │ certify capability │
                          └────────────────────┘
```

Mission-Relevant Language Training

"...I don't need to be able to send a letter at the post office or ask how to open a savings account at a bank. I need to be able to say ambush, grenade, fire your weapon, align your sights properly, etc..."

-Leader of a Deployed SO Unit

"A lot of those military terms basically you can learn just as easily as anything else. So maybe instead of 'see Spot run' you could have 'see Pedro dodge bullets' or something."

-NSW Interviewee

Mission-Relevant Language Training

- Surveys, focus groups, and interviews with SOF personnel identified the need for mission-relevant training and assessment.

  "The instructors are told to teach for the test the Soldiers will take, so the Soldier knows how to ask for a blue dress but cannot teach rifle marksmanship."

  -5th SFG Operator

- How do we make training mission-relevant?
  - Needs Assessment: What does the mission require?
  - Align learning activities and **assessment** with mission requirements
  - **"Wash back" effect of assessment and assessment policy**

Training Needs Assessment (TNA)

- A process which provides a mechanism for aligning organizational objectives and capability through specifying focused, relevant training requirements and objectives which drive training design and measurement (Salas & Cannon-Bowers, 2001; Surface, 2012)

- Needs Assessment to create mission/job-related test specifications is very similar; both require specific information about desired performance

Training Needs Assessment (TNA)

- **Definition:**
  - Systematic process
  - Applies work analysis techniques and procedures
  - Identifies and specifies training requirements that have been linked to deficiencies in individual, team, or organizational performance
  - Develop learning objectives to address deficiencies

- **Purpose:**
  - Guide design (or selection), delivery and evaluation of learning activities to close the "gaps" in underlying KSAOs or competencies related to deficiencies in the performance of critical tasks in context

Training Needs Assessment (TNA)

TNA **Value:**

- Mechanism for aligning organizational capability with performance requirements to meet organizational objectives

- Specifies focused, relevant training/assessment requirements and objectives which drive design, delivery and measurement

- Facilitates transfer of learning to the work environment

- Increases efficiency and effectiveness of learning enterprise

- Increases organizational effectiveness (NZ study)

However, unfortunately, just doing a "needs assessment" is not enough; the needs assessment must fit the purpose and context, produce useful information at an appropriate level of detail, and be used.
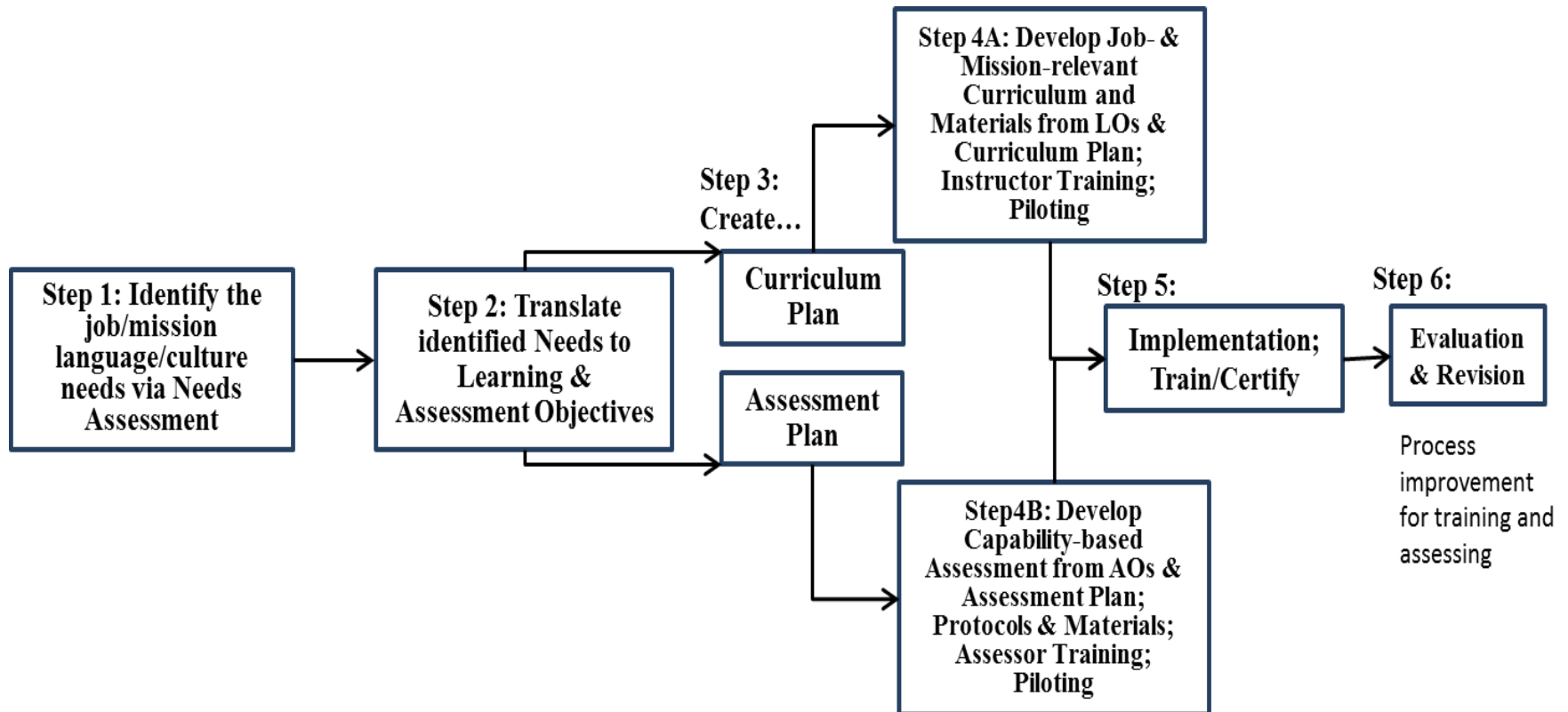
NA as Part of a Systematic Approach

Developing Mission-focused LREC Capability

This model was originally presented at the 2013 United States Special Operations Command (USSOCOM) Command Language Program Manager (CLPM) Advanced Competencies Course in a presentation titled, *The Language Needs Assessment Process and Resulting Products*.
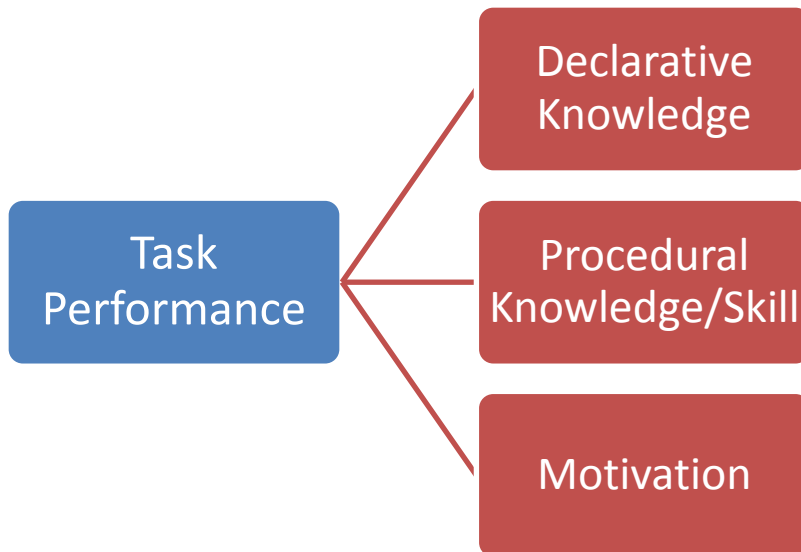
Performance

- *Behavior* (action), *performance* (action that contributes to organizational goals) and *effectiveness* (outcome) (Borman, 1991).

- "Performance is not the outcome or the consequence of behavior; it is the behavior itself" (Campbell et al, 1993).

- **Campbell (1999): [Work, job, mission] "performance is defined as <u>behavior</u> or action that is <u>relevant for the organization's goals</u> and that can <u>scaled</u> (measured) in terms of the level of proficiency (or contribution to goals) that is <u>represented by a particular action or set of actions."</u>**

- Performance happens in context and is defined in part by the context.

- *Lewin: B=f[I,E] so P=f[I,E]*

P=f[**Individual**, E]

Performance models have performance determinants…

```
Task
Performance ─┬─ Declarative Knowledge
             ├─ Procedural Knowledge/Skill
             └─ Motivation
```

- Campbell's Determinants: DK, PK/S, M

- Knowing facts, knowing how, practiced acts, and choice behaviors

- Individual differences

- Determinants are not performance but performance is a "joint function" of individual difference on DK, PK/S, M

- Determinants can be in general and specific domains

- Assessment and learning can be *determinant deficient*

- *KSAO analysis: KSAOs most be relevant and tied to performance*

P=f[I, **Environment**]

- All behavior happens in context
- Johns (2006)
  - Discrete (Physical, Task, Social)
  - Omnibus
  - Context changes relationships/requirements
- Each activity, task or incident happens in a 'situation'
- Situation/contextual characteristics influence task and activities and KSAO requirements
- Recognize cues for performance
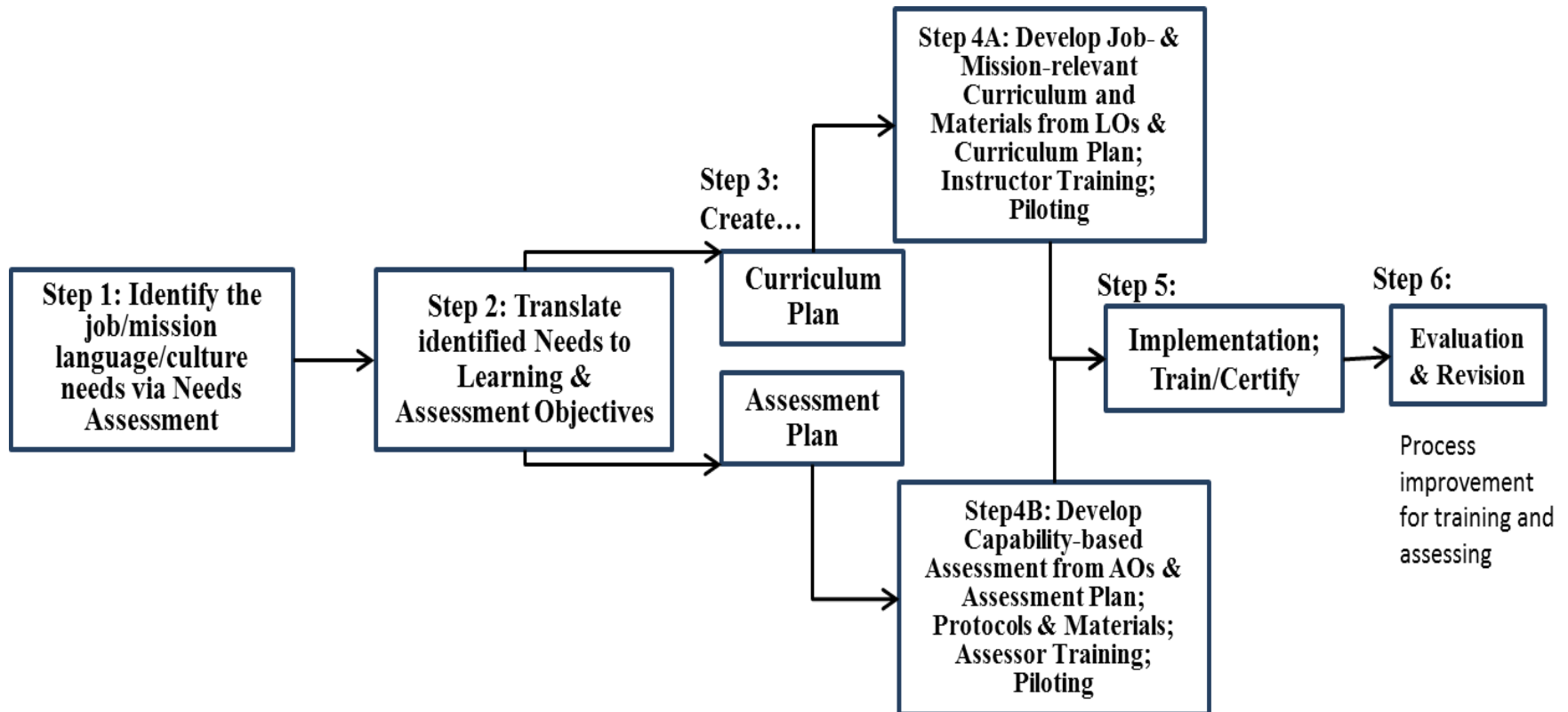- Situation strength, KSAO relevance and activation

Aligning with Job/Mission Requirements
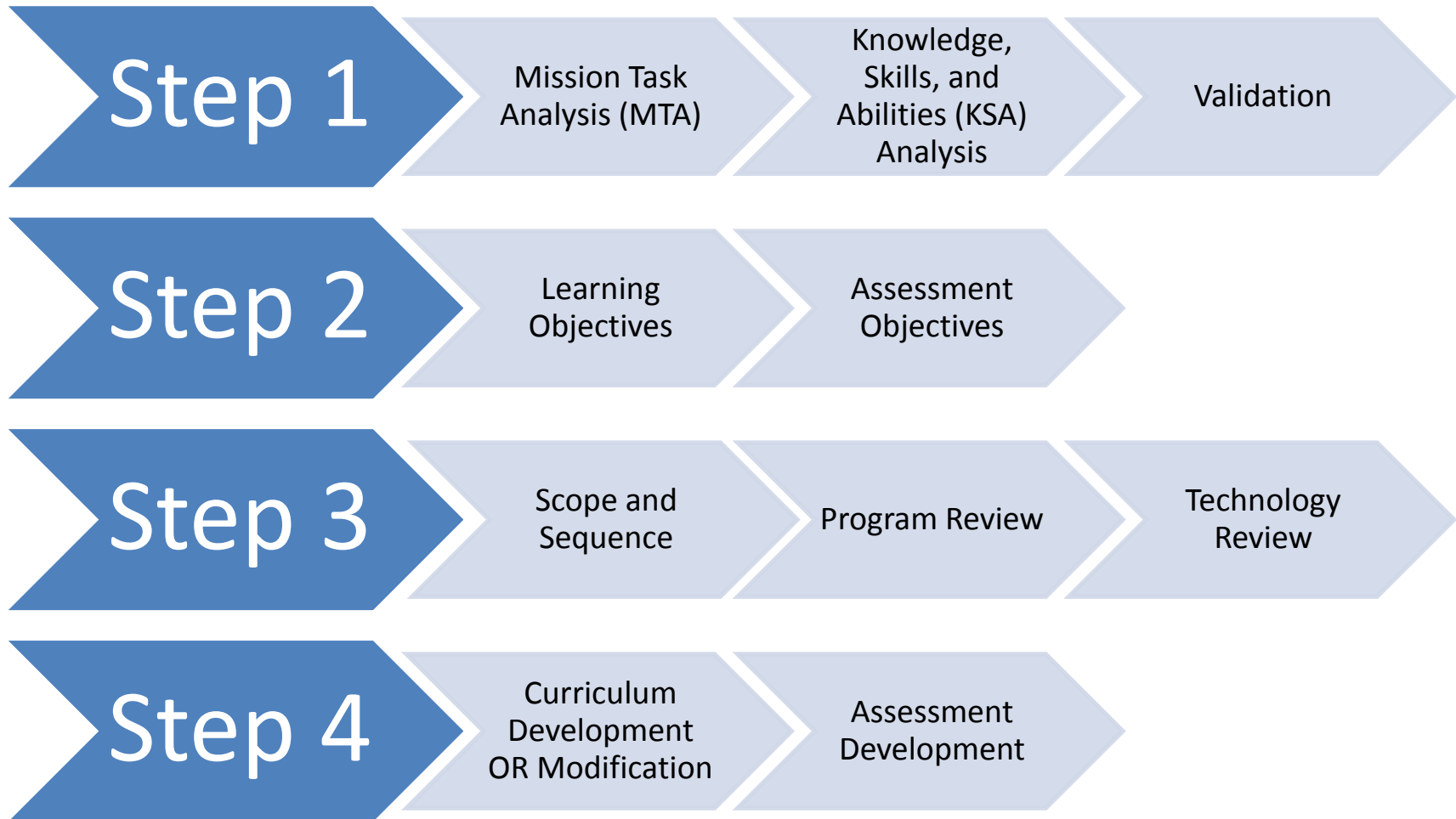
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This model was originally presented at the 2013 United States Special Operations Command (USSOCOM) Command Language Program Manager (CLPM) Advanced Competencies Course in a presentation titled, *The Language Needs Assessment Process and Resulting Products*.

USSOCOM LREC Process

Step 1 → Mission Task Analysis (MTA) → Knowledge, Skills, and Abilities (KSA) Analysis → Validation

Step 2 → Learning Objectives → Assessment Objectives

Step 3 → Scope and Sequence → Program Review → Technology Review

Step 4 → Curriculum Development OR Modification → Assessment Development

Step 1: MTA and KSA Analysis

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ Identify Mission│  →   │ Recruit         │  →   │ Gather ratings  │
│ Tasks           │      │ Operational     │      │ from Operational│
│                 │      │ SMEs            │      │ SMEs related to │
│                 │      │                 │      │ mission tasks   │
└─────────────────┘      └─────────────────┘      └─────────────────┘
                                                           ↓
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ LREC Experts    │  ←   │ Select LREC     │  ←   │ Eliminate tasks │
│ meet with       │      │ Experts and     │      │ that do not     │
│ Operational SMEs│      │ Operational     │      │ require LREC to │
│ to determine    │      │ SMEs            │      │ perform         │
│ KSAs for LREC   │      │                 │      │                 │
└─────────────────┘      └─────────────────┘      └─────────────────┘
        ↓
┌─────────────────┐
│ Validate MTA and│
│ KSA Results     │
└─────────────────┘
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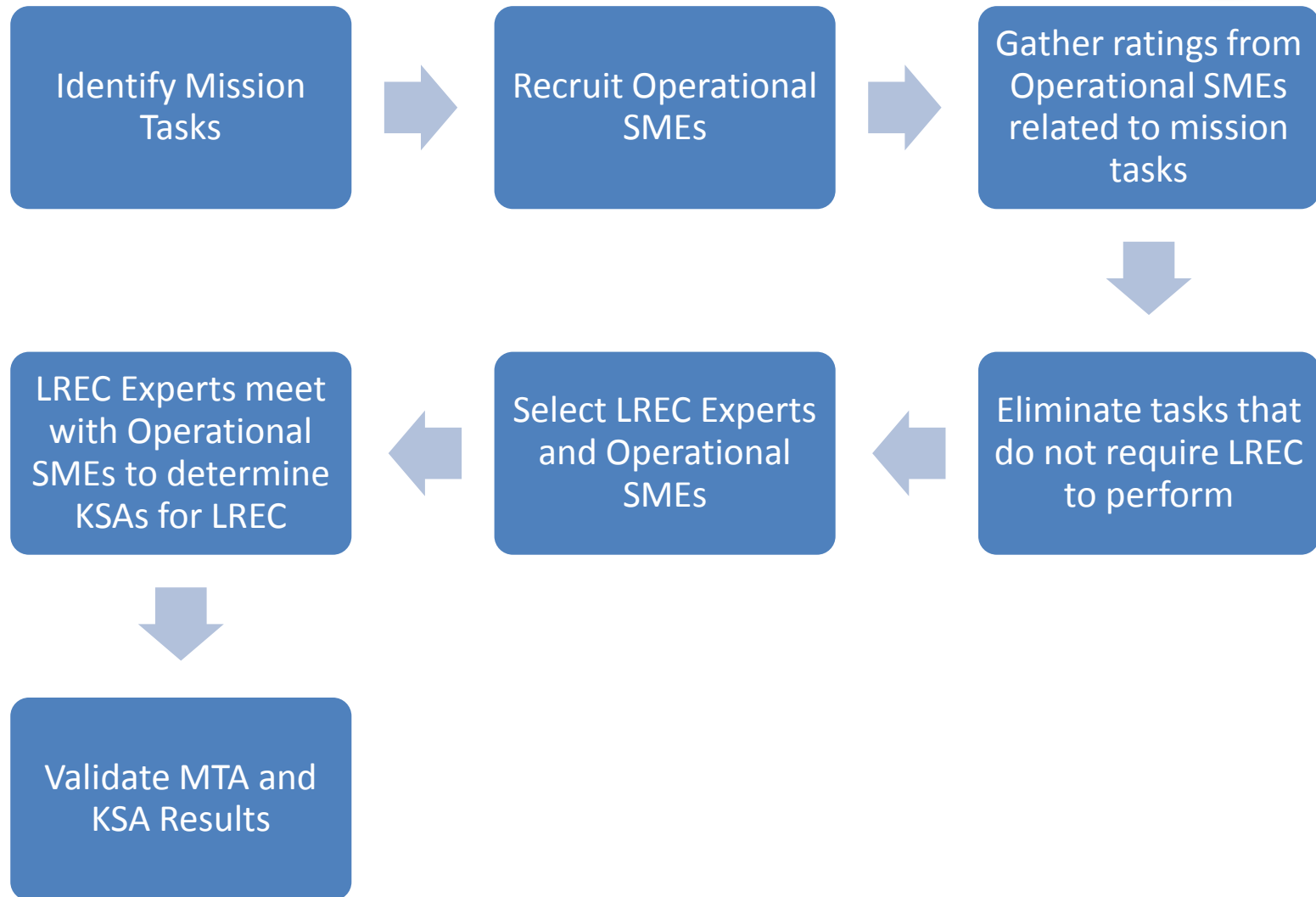
Step 2: Develop Objectives
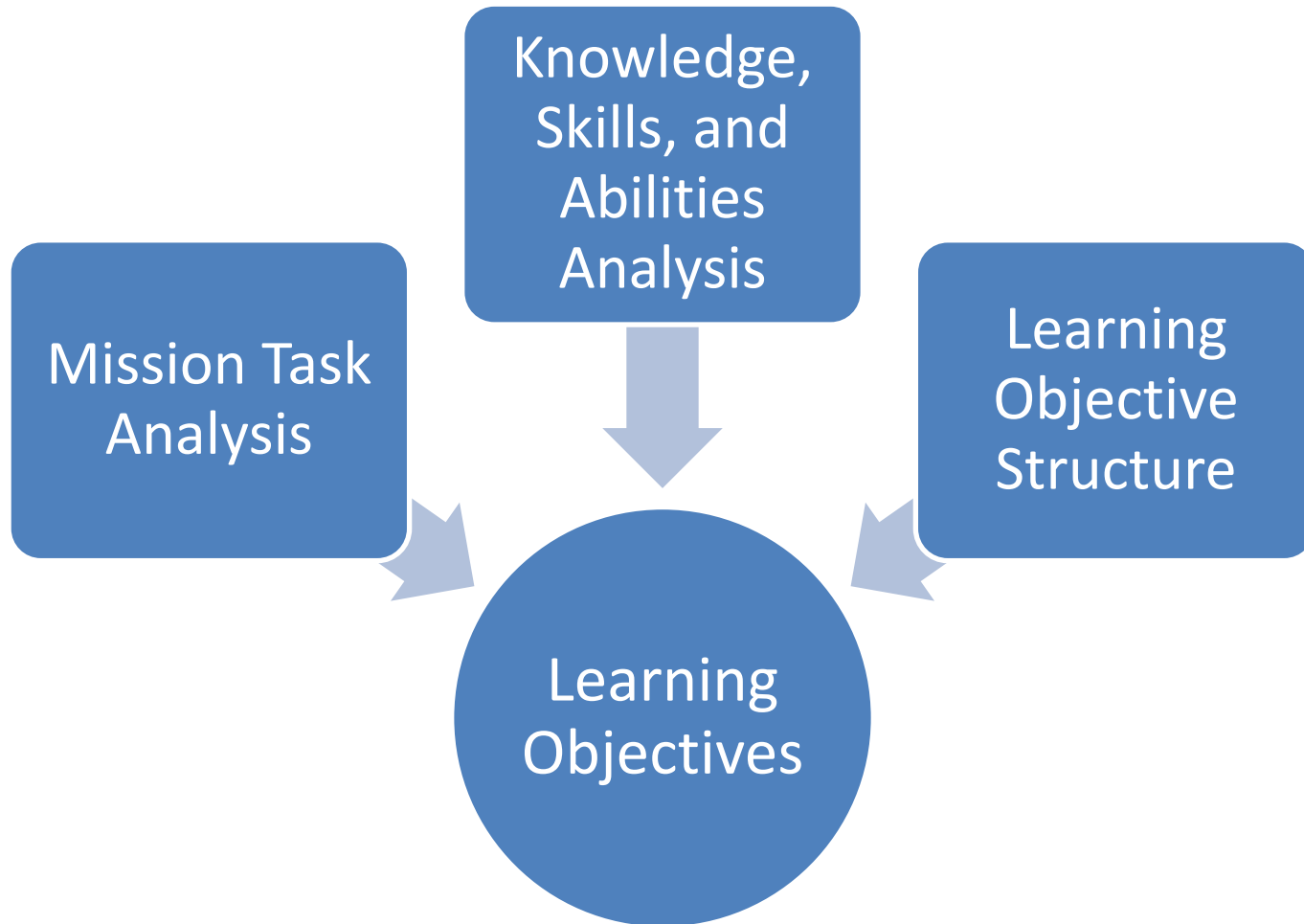
Steps 4, 5, and 6

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Typical Learning Objectives

8   Identify family relationships

     ELO: Identify family members
     ELO: Talk about your family
     ELO: Ask about other family members
     ELO: Talk about family events
     ELO: Identify family relationships in the TR

9   Express quantities up to 20

     ELO: Count from 0 to 20
     ELO: Number the objects in the classroom
     ELO: Count currency
     ELO: Identify your license plate

11 Express cardinal numbers

     ELO: Provide your home address
     ELO: Provide the age of your family members
     ELO: Request the price of merchandise
     ELO: Buy merchandise

Typical Learning Objectives (cont.)

33. Engage Targets with an M-4

    ELO: Zero an M-4
    ELO: Load an M-4
    ELO: Unload an M-4
    ELO: Maintain an M-4
    ELO: Perform Function Check on an M4
    ELO: Correct Malfunction on an M-4

34. Engage Targets with an M-9

    ELO: Load an M-9
    ELO: Unload an M-9
    ELO: Maintain an M-9
    ELO: Correct Malfunction on an M-9

35. Detainees

    ELO: Search an Individual
    ELO: Search a Detainee
    ELO: Guard Detainees
    ELO: Search a vehicle in a tactical environment

Example NSW Learning Objective

TAG: CB-02-02-145-13-01-01-02-02

The NSW SEAL/SWCC personnel will **give commands** in order to **train others to accomplish small arms qualifications** as part of **NSW Range Safety Operations** at the **tactical level of conflict** and **within a level 1 socio-cultural context** and to an **emerging** standard of performance in relation to the targeted proficiency level **ILR level 1** as measured by appropriate formative and summative assessments.

Example: Civil Affairs LNA (2001)

- Each task was reviewed and a proficiency level for each language modality was assigned.

Table 1A. Distribution of Language Requirements for All 87 Tasks

Language Skill	ILR Proficiency Level Requirements									
	NONE	0+	1	1+	2	2+	3	3+	4	Total
LIST				2	48	3	27	5	2	87
SPKG				2	47	4	27	5	2	87
RDG	2	2	11	6	43	2	16	2	3	87
WRTG	3	16	18	31	8	2	8		1	87

- Result: Absolute minimum profile in L/S/R/W is 2+/2+/2/1+. The safest profile is 3/3/2/1+.

How we assign ILR levels to tasks

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NSW Tactical Communications Tasks, Train Others Context, Tactical LOC

ILR experts were asked to identify the minimum level of proficiency required for a person with correct, contextualized, specific training to be able to fully perform each task.

Tactical Communications Tasks	Interpersonal Speaking Proficiency			
	ILR 1	**ILR 1+**	**ILR 2**	**Above ILR 2**
Conduct full spectrum non-verbal communication (e.g., loss of comms, hand/arm signals, pop flares, signal devices)	Limited	Full	Full	Full
Operate communication systems	Unsustained	Limited	Full	Full
Maintain communication systems	Unsustained	Limited	Full	Full
Supervise/manage partner nation communication systems	Unsustained	Limited	Full	Full

Note. Unsustained = Random and often incomplete performance, *Limited* = Performance of the task in a limited context and manner, *Full* = Can perform the task minimally as described for NSW operations. *Full/Limited* is used when the requirements of the task are so high that even some speakers above ILR Level 2 may not be able to perform them fully.

Questions & Discussion

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